

## Product Brief

# Easy & Econo modules

The EasyPIM™/EasyPACK as well as the EconoPIM™/EconoPACK™ families were developed in order to have a cost-effective compact design as well as simplified and reliable mounting. With these modules, we offer an optimized product generation for low- and medium-power industrial drives.

The Easy family with its EasyPIM™, EasyPACK and EasyDUAL configurations covers the full power range from 6 A up to 200 A at 600 V/650 V/1200 V. The modules are without base plates and include the newest IGBT4 technology. The screw clamp provides a new, fast, reliable and low-cost mounting concept.

This series has been extended with the Easy1B and Easy2B sizes for more flexibility with reduced height from 17 mm to 12 mm and injected screw clamps for mounting.

The Econo family extends the power range from 15 A up to 300 A nominal current at 600 V/650 V/1200 V/1700 V. The available configurations are the well-known EconoPIM™ and EconoPACK™ series. The Econo housing features a copper base plate for optimized heat spread and includes a thermistor (NTC). The Econo modules are available with solderable pins or with PressFIT pins and an increasing number of Econo modules is available with pre-applied TIM already.

Besides the standard planar IGBT chip technology for low switching losses, saturation voltage and high switching frequency, the Econo family also includes the optimized IGBT4 in 650 V/1200 V/1700 V. For ease of design, IGBTs with 10  $\mu$ s short circuit robustness are now available in 650 V, 1200 V and 1700 V in the same mechanical design. Selected Econo modules feature integrated shunts for accurate and cost efficient current sensing.

### Key features

- > Compact module concept
- > Optimizes customer development cycle time and cost
- > Configuration flexibility
- > High power density
- > Established Econo and Easy module concept
- > Integrated temperature sensor available
- > Low stray inductance module design
- > RoHS-compliant modules

### Applications

- > Industrial drives
- > Solar inverters
- > UPS/power supplies
- > Aircon
- > Welding
- > Medical
- > Battery chargers
- > Inductive heating



# Easy 1B & 2B product portfolio

650V/1200V

I <sub>c</sub>	Power Integrated Module (PIM)		6-pack	
	600V	1200V	600V	1200V
10 A	FP10R06W1E3 FP10R06W1E3_B11	FP10R12W1T4 FP10R12W1T4_B11		
15 A	FP15R06W1E3 FP15R06W1E3_B11	FP15R12W1T4 FP15R12W1T4_B11 FP15R12W2T4		
20 A	FP20R06W1E3 FP20R06W1E3_B11	FP25R12W2T4 FP25R12W2T4_B11	FS20R06W1E3 FS20R06W1E3_B11	FS25R12W1T4 FS25R12W1T4_B11
35 A	FP30R06W1E3 FP30R06W1E3_B11	FP35R12W2T4 FP35R12W2T4_B11	FS30R06W1E3 FS30R06W1E3_B11	FS35R12W1T4 FS35R12W1T4_B11
50 A	FP50R06W2E3 FP50R06W2E3_B11		FS50R06W1E3 FS50R06W1E3_B11	FS50R12W2T4 FS50R12W2T4_B11
75 A				FS75R12W2T4 FS75R12W2T4_B11
100 A				

W1 = Easy1B

W2 = Easy2B

...B11= PressFIT modules

# Econo product portfolio for new designs

650V/1200V/1700V

I <sub>c</sub>	Power Integrated Module (PIM)			6-pack		
	650 V	1200 V	1700 V	650 V	1200 V	1700 V
25		FP25R12KT4 FP25R12KT4_B11				
35		FP35R12KT4 FP35R12KT4_B11				
50	FP50R07N2E4 FP50R07N2E4_B11	FP50R12KT4(P) FP50R12KT4(P)_B11		FS50R07N2E4 FS50R07N2E4_B11	FS50R12KT4_B15 FS50R12KT4(P)_B11	
75	FP75R07N2E4 FP75R07N2E4_B11	FP75R12KT4(P) FP75R12KT4(P)_B11	FP75R17N3E4 FP75R17N3E4_B11	FS75R07N2E4 FS75R07N2E4_B11	FS75R12KT4_B15 FS75R12KT4(P)_B11	
100	FP100R07N3E4 FP100R07N3E4_B11	FP100R12KT4(P) FP100R12KT4(P)_B11		FS100R07N2E4 FS100R07N2E4_B11 FS100R07N3E4 FS100R07N3E4_B11	FS100R12KT4(P) FS100R12KT4(P)_B11 FS100R12KT4G(P) FS100R12KT4G(P)_B11	FS100R17N3E4 FS100R17N3E4_B11
150	FP150R07N3E4 FP150R07N3E4_B11			FS150R07N3E4 FS150R07N3E4_B11	FS150R12KT4(P) FS150R12KT4(P)_B11	FS150R17N3E4 FS150R17N3E4_B11
200				FS200R07N3E4R FS200R07N3E4R_B11	FS200R12KT4R(P) FS200R12KT4R(P)_B11	

\_B11 PressFIT pins    \_B15 solder pins compatible to IGBT3 type    (P) pre-applied Thermal Interface Material (TIM) optional available  
N2 Econo2    N3 Econo3

# Econo product portfolio for new designs

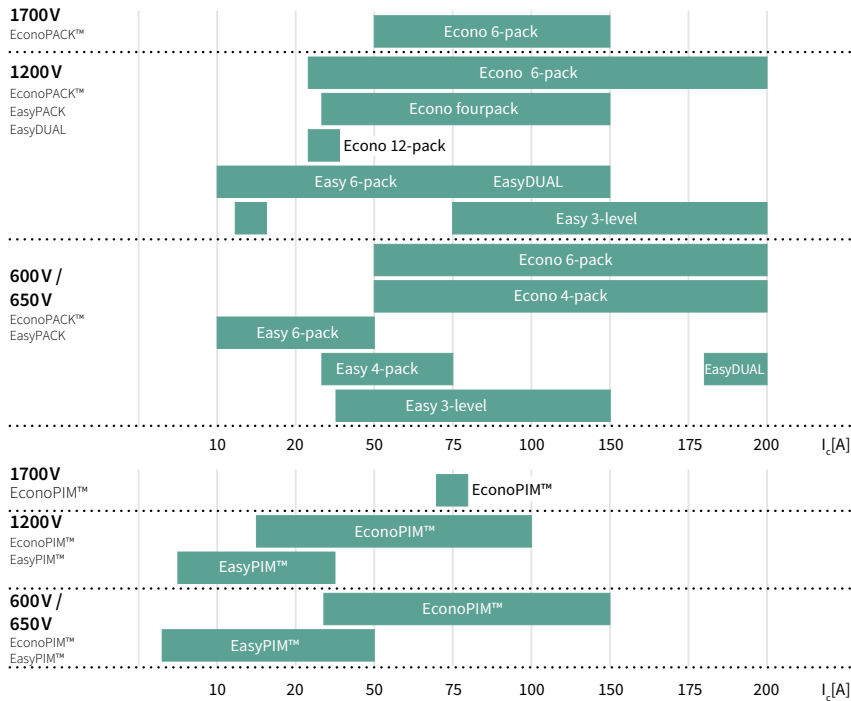
Integrated shunts

I <sub>c</sub>	6-pack		2-pack	
	650 V	1700 V	650 V	
75	IFS75B12N3E4_B31			
100	IFS100B12N3E4_B31 IFS100B-12N3E4P_B11	IFS100B17N3E4P_B11		
150	IFS150B12N3E4_B31 IFS150B-12N3E4P_B11	IFS150B17N3E4P_B11		
200	IFS200B12N3E4_B31			
300			IFF300B12N2E4P_B11	IFF300B17N2E4P_B11
450				
600				

\_B31 Solder Pins; \_B11 PressFIT Pins; P pre-applied thermal interface material (TIM); N2 Econo2; N3 Econo3

# Product portfolio low and medium power

## EasyPACK/EasyPIM™, EconoPACK™/EconoPIM™



### Available Module Configurations

Infineon shortcut	Description	Circuit
FB FP	PIM	
FS	6-pack	
I	Integrated Shunt	

Infineon shortcut	Description	Circuit
F3L	3-level	
F4	4-pack	
FF	2-pack	

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